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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/533,863

05/05/2005

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EXAMINER

GUIDOTTI, LAURA COLE

ART UNIT

PAPER NUMBER

1744

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,863	<b>Applicant(s)</b> GEIBERGER, CHRISTOPH	
	<b>Examiner</b> Laura C. Guidotti	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 05052005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Specification***

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

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- (I) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. The disclosure is objected to because of the following informalities:

Page 1 Line 32, Page 2 Line 6, and Page 2 Line 10 each refer to particular US Patent Documents, however their numbering is not correct. For Example, Page 2 Line 6 refers to US Patent 4,4152,853 which is not a valid patent number.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the tip end" in Line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the part of the middle section" in Line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the section" in Lines 15 and 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the adjacent part" in Lines 16 and 19. There is insufficient antecedent basis for this limitation in the claim.

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Claim 3 recites the limitation "the sections" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

In claims 5, 7, and 20 it is unclear as to what is meant by "ca."

Claim 6 recites the limitation "the bristle carrying surface" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the surface of the adjacent part of the surface" in Lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "the lateral sections" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the widthways adjacent sides" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the sections" in Line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 is somewhat unclear in Lines 3-5, specifically "but such that they, and/or the sections they are connected to are in contact at their ends closest to the tip".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-14 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Dawson et al., US 5,802,656.

Dawson et al. disclose the claimed invention including a toothbrush head (1) connected or connectable at its base end to a handle (2) defining a longitudinal direction (longitudinal direction is in the vertical direction as oriented in Figures 1-2), and comprising three widthways adjacent, longitudinally extending sections from which bristles extend (the three sections are 6, 6, and 23 which are best shown in Figures 6, 16, 19, or 22; the bristles are 8, 9, 10, 11, 12; see Figures), there is a middle section (23) and a lateral section on each widthways side of the middle section (each are 6), one or more sections being resiliently flexibly connected or connectable to the grip handle (Column 4 Lines 15-18), characterized in that the end of the middle section adjacent to the tip end of the head (the end is 21 or 24) is integrally widthways enlarged relative to the part of the middle section longitudinally adjacent nearer to the handle (best shown in Figures 16-18) to provide a bristle-carrying pad adjacent to the tip end of the head (again, see Figures) and which extends across the entire width of the toothbrush head adjacent the tip end (see Figures 16-18), the middle section comprises an intermediate bristle carrying pad (unlabeled, shown in Figure 16 in particular), being a region of maximum width of the part of the middle section between the tip pad and the base end of the head (see Figures), with a first link region of the section between the tip pad and the intermediate pad being narrower in width than the adjacent part of the tip pad and the intermediate pad (unlabeled, shown in Figure 16 in particular), and a second link region of the section between the intermediate pad and the handle being narrower in width than the adjacent part of the intermediate pad (unlabeled, shown in Figure 16 in particular). Regarding claim 2, there are only three sections, being a

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middle section and two lateral sections (6, 6, and 23). Regarding claims 3 and 14, one or more of the sections are resiliently flexibly connected to the grip handle so that the sections may be resiliently bent out of a plane parallel to the longitudinal and width directions under pressure (as both members 6 are resilient; Column 4 Lines 15-18).

Regarding claim 4, there is only one intermediate pad, only one first link region, and only one second link region (unlabeled, shown in Figure 16 in particular). Regarding claim 5, in its longitudinal direction, the tip pad has a length of 10-50% of the toothbrush head between its base and tip ends (as shown in Figure 16 for example). Regarding claim 6, the bristle carrying surface of the tip pad forms an angle of 160-180 degrees with the surface of the adjacent part of the first link region (shown in Figure 16).

Regarding claim 7, the tip pad extends longitudinally beyond the ends of the ends of the lateral sections remotest from the handle for a distance of 15-30% of the length of the toothbrush head between its base end and tip end (as shown in Figure 16). Regarding claim 8, the intermediate pad has a length 20-40% of the length of the toothbrush head between the tip end and the base end of the head (as shown in Figure 16). Regarding claim 9, the intermediate pad is located so that 50% or more of its bristle face is in the longitudinal half of the head furthest from the tip end of the head (as it's about 50%-70%, see Figures). Regarding claim 10, the intermediate pad is located so that all of its bristle face is in the longitudinal half of the head furthest from the tip end of the head (as shown in Figure 16). Regarding claim 11, the middle section comprises longitudinally sequentially a widthways narrow region extending from the base end of the head toward the tip end of the head from the direction of the handle to comprise the second

link region and enlarging widthways at a place intermediate between the base of the head and the tip pad to form the intermediate pad, a widthways narrow region extending from the intermediate pad toward the tip end of the head from the direction of the handle to comprise the first link region, and integrally enlarging widthways adjacent to the tip end of the head to form such a tip pad (as shown in Figure 16). Regarding claim 12, the second link region is between the intermediate pad and the base end of the head (Figure 16). Regarding claim 13, widthways adjacent sections are in contact allowing sliding relative movement of the sections (all "adjacent sections" are in contact, see Figures).

6. Claims 1-2 and 5-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Naslund, US D440,404.

Naslund discloses the claimed invention including a toothbrush head connected or connectable at its base end to a handle defining a longitudinal direction (longitudinal direction is in the vertical direction as oriented in Figures 1-3), and comprising three widthways adjacent, longitudinally extending sections from which bristles extend (the three sections shown best in Figure 3), there is a middle section (the central middle section, Figure 3) and a lateral section on each widthways side of the middle section (Figure 3), one or more sections being resiliently flexibly connected or connectable to the grip handle (capable of being "connectable", Figure 3), characterized in that the end of the middle section adjacent to the tip end of the head is integrally widthways enlarged relative to the part of the middle section longitudinally adjacent nearer to the handle (best shown in Figure 3) to provide a bristle-carrying pad adjacent to the tip end of the



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head (Figure 3) and which extends across the entire width of the toothbrush head adjacent the tip end (Figure 3), the middle section comprises an intermediate bristle carrying pad (Figure 3), being a region of maximum width of the part of the middle section between the tip pad and the base end of the head (see Figure 3), with a first link region of the section between the tip pad and the intermediate pad being narrower in width than the adjacent part of the tip pad and the intermediate pad (Figure 3), and a second link region of the section between the intermediate pad and the handle being narrower in width than the adjacent part of the intermediate pad (Figure 3). Regarding claim 2, there are only three sections, being a middle section and two lateral sections (Figure 3). Regarding claim 5, in its longitudinal direction, the tip pad has a length of 10-50% of the toothbrush head between its base and tip ends (see Figure 3).

Regarding claim 6, the bristle carrying surface of the tip pad forms an angle of 160-180 degrees with the surface of the adjacent part of the first link region (see Figure 3).

Regarding claim 7, the tip pad extends longitudinally beyond the ends of the ends of the lateral sections remotest from the handle for a distance of 15-30% of the length of the toothbrush head between its base end and tip end (see Figure 3). Regarding claim 8, the intermediate pad has a length 20-40% of the length of the toothbrush head between the tip end and the base end of the head (see Figure 3, closer to 20%). Regarding claim 9, the intermediate pad is located so that 50% or more of its bristle face is in the longitudinal half of the head furthest from the tip end of the head (see Figure 3, many intermediate pads). Regarding claim 10, the intermediate pad is located so that all of its bristle face is in the longitudinal half of the head furthest from the tip end of the head

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(see Figure 3). Regarding claim 11, the middle section comprises longitudinally sequentially a widthways narrow region extending from the base end of the head toward the tip end of the head from the direction of the handle to comprise the second link region and enlarging widthways at a place intermediate between the base of the head and the tip pad to form the intermediate pad, a widthways narrow region extending from the intermediate pad toward the tip end of the head from the direction of the handle to comprise the first link region, and integrally enlarging widthways adjacent to the tip end of the head to form such a tip pad (see Figure 3, wherein the intermediate pad is considered to be the pad next to the tip pad). Regarding claim 12, the second link region is between the intermediate pad and the base end of the head (Figure 3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 14-20, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naslund, US D440,404 in view of Weihrauch, US 6,353,958 and in view of Applicant's present Specification.

Naslund discloses the claimed invention including all elements mentioned above, however does not disclose that one or more (or two or more) sections are resiliently flexible connected to the grip handle of the toothbrush or that a head is made of a fiber-reinforced plastic material. Regarding claim 15, one or more sections are connected to

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the grip handle by an integral neck (Figure 3). Regarding claim 16, all of the sections are respectively connected to the grip handle by means of the neck that extends between the base end of the sections and an end of the grip handle closest to the sections (Figure 3). Regarding claim 17, each section of the head is connected to the grip handle by a respective neck being an integral extension of the section toward the handle, and the neck has a length in the range 0.4-1.5 of the length of the head section (as shown in Figure 3). Regarding claim 18, the widthways adjacent sides taper in their widthways spacing so as to be spaced apart with an air gap between them at their ends closest to the handle however they are capable of contacting their ends closest to the tip (Figure 3).

Weihrauch teaches a toothbrush that has head section resiliently flexibly connected to the grip handle of the toothbrush by a neck (3) having a spring part (4) so that a user brushing is able to resiliently bend the toothbrush at its neck portion. Weihrauch further teaches that such a spring part that is resiliently flexible comprises of a fiber-reinforced plastics material (Column 2 Lines 52-56). There is elastomeric material between widthways parts of necks (as particularly shown in Figures 5-6).

Applicant's present Specification on Page 8 Lines 16-21 states that the head can be "made of...polypropylene, polystyrene, etc., as well known in toothbrush manufacture" and further states that "The plastics material may be selected to optimize resilience of the section and/or neck...e.g. polyester fibre-reinforced polypropylene..."

It would have been obvious for one of ordinary skill to modify the toothbrush at the head and neck portion of Naslund so as to be resiliently flexible and comprise a

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fibre-reinforced plastics material, as Weihrauch teaches, in order to provide a spring part that allows resilient and elastic bending of the head relative to the handle when pressure is applied during brushing and also it would have been obvious for one of ordinary skill in the art to modify the fibre-reinforced plastics material of Naslund and Weihrauch so that it is a polyester fibre-reinforced polypropylene, as the Applicant admits, that polypropylene is well known in toothbrush manufacture and that to optimize the resilience one can employ specifically polyester fiber-reinforced polypropylene, and also it would have been obvious to one having ordinary skill in the art at the time of the invention was made to manufacture the head of Naslund and Weihrauch from a polyester fibre-reinforced polypropylene, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dawson et al., US 5,802,656 in view of Moskovich et al., US 2001/0042280.

Dawson et al. disclose all elements above, however do not disclose that the tip and intermediate pad are longitudinally separated by a distance 1-2 cm between centers of the tip and intermediate pads.

Moskovich et al. teach three bristle "pads" (16, 18, and 20) wherein bristle pad "16" is considered to be a tip end bristle pad and either bristle pads "18" or "20" are considered to be intermediate pads. The centers of the bristle pads are spaced or separated by a distance in the range of 1-2 cm (paragraph 18 explains different separation dimensions, and while not explicitly stated, the separation is in the range of

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1-2cm) so that the free ends of the bristle pads have a profile that conforms to the curvature between teeth (paragraph 18).

It would have been obvious for one of ordinary skill in the art to modify the tip and intermediate pads of Dawson et al. so that they are longitudinally separated by a distance of 1-2 cm, as Moskovich et al. teach, so that the bristle pads conform to the spacings found between the users teeth.

9. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Naslund, US D440,404 in view of Moskovich et al., US 2001/0042280.

Naslund discloses all elements above, however do not disclose that the tip and intermediate pad are longitudinally separated by a distance 1-2 cm between centers of the tip and intermediate pads.

Moskovich et al. teach three bristle "pads" (16, 18, and 20) wherein bristle pad "16" is considered to be a tip end bristle pad and either bristle pads "18" or "20" are considered to be intermediate pads. The centers of the bristle pads are spaced or separated by a distance in the range of 1-2 cm (paragraph 18 explains different separation dimensions, and while not explicitly stated, the separation is in the range of 1-2cm) so that the free ends of the bristle pads have a profile that conforms to the curvature between teeth (paragraph 18).

It would have been obvious for one of ordinary skill in the art to modify the tip and intermediate pads of Naslund so that they are longitudinally separated by a distance of 1-2 cm, as Moskovich et al. teach, so that the bristle pads conform to the spacings found between the users teeth.


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***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Laura C Guidotti  
Patent Examiner  
Art Unit 1744

lcg